

Gateway

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The ARRL Packet-Radio Newsletter

COMMENT PERIOD EXTENDED IN DOCKET 87-14

In response to an ARRL request, the FCC has extended the deadline for comments in Docket 87-14, the FCC proposal to reallocate 220-222 MHz to the land mobile service. The original deadline for receipt (by FCC) of comments was April 6. In requesting an extension of time, ARRL argued that given the publication schedule of the major amateur media, this was insufficient time for the amateur community to become informed of the docket and to formulate comments.

The extension of time moves the deadline for receipt of comments to May 21, 1987, with reply comments due by June 19, 1987.

PENNSYLVANIA PACKET ORGANIZATION FORMING

The Pennsylvania Packet Association (PaPA) has been organized to serve all amateurs in the state who are interested in packet radio. PaPA intends to promote the coordinated development of packet throughout the state. The near-term goal is to establish a 220-MHz packet trunk across Pennsylvania which would improve forwarding of BBS mail and files. This is viewed as a first step toward reducing congestion on 145.01 MHz. For more information, contact:

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Du Bois, PA 15801

From WA3UFN

PACKET FORUM TO BE HELD AT TRENTON

A packet forum is being planned for the Trenton Computerfest, to be held on Saturday, April 11, 1987. Although the schedule is not complete as Gateway goes to press, we do know that seminars on packet for the beginner, good operating practices on packet, and packet networking will be held. The forum starts at 10:30 AM.

PSK MODEMS SHOW GOOD WEAK-SIGNAL PERFORMANCE

Tom Clark, W3IWI had an opportunity to put the TAPR PSK modem (see "TAPR TO MAKE FO-12 MODEMS AVAILABLE," Gateway, Volume 3, Number 15) to work to solve a weak-signal communications problem. Here's Tom's report:

This note will tell of some very exciting tests we ran on 10 meters last week using my two prototypes of the TAPR PSK modem. The venue for the tests was

Fairbanks, AK (a business trip called me to the frozen tundra). My good friend Mike Rice, KL7YV (of Amateur Packet Alaska fame) was telling me of his 6-meter meteor scatter packet experiments and was commenting that with 4800- and 9600-baud PSK (using K9NG modems) they lacked signal margin for establishing a reliable path to locations such as Homer and Juneau.

I told Mike that I had my PSK modems with me and we decided to give them a try on the air on a weak-signal path. We set up one end at the site of my 85-ft radio telescope (from whence emanates the W3IWI/KL7 and KL7RA EME signals), nestled in a valley chosen to be a quiet RF location. Quiet indeed! From the site I can't even hear local 2-m FM repeaters! At the site I had a Kenwood TS-940 and a small tribander, plus my PSK modem.

Mike put the other modem on the air from his place using his Yaesu FT-980 (and later an FT-726 equipped with the 10-m module). Since we knew that my end was in a notorious RF "black hole," we started out running at 50-100 W power levels, but after exchanging our first packet we saw that we had scads of S/N margin, so we cut our power down and put attenuators in the receiver inputs until we were running the equivalent of 2-5 milliwatts. And we were still seeing packets with bit-error rates less than 1×10^{-4} .

We thus demonstrated on the air on 10-m the same performance measured in the "lab" -- PSK packets can be copied essentially error-free with signals that are only 6 to 8 dB above the noise level as measured in the approximately 700-Hz-wide filters of the modem's Costas-loop demodulator (about 4 to 5 dB above the noise in the 2.3-kHz passband of a typical SSB radio). We kept the tests running for several days with nary a hitch. The radios stayed tuned in and link performance was excellent. 28200-kHz PSK was a real winner!

Since use of 1200 bauds is legal in the US on 10 meters (and 6 meters), and since 10 meters is the lowest frequency band on which Novices and Technicians can operate digital modes, and since no de facto standards exist for 10-meter or 6-meter packet, and since PSK works well with stock SSB radios, and since these bands hold the greatest promise for operational meteor-scatter packet links, and since the PSK modems work so well in a weak signal environment, I would like to suggest we adopt PSK as the packet standard for these (virtually) virgin bands.

By Tom Clark, W3IWI

LIST OF LINKED MAIL-FORWARDING PACKET BBS SYSTEMS

The following list of 420 packet BBSs was compiled from various sources by W9ZRX. We believe this to be the most complete BBS list extant. BBSs listed here are those that are capable of automatically forwarding mail using the WORLI mail-forwarding protocol. Only those BBSs that serve local users or other BBSs are shown. (No personal "mail drop" systems are listed.) Send additions and corrections to:

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N1AHH	Bangor, ME	WB2RVX	Voorhees, NJ	WA4KXV	Virginia Beach, VA
N1AKR	Cumberland Ctr, ME	WA2SNA	Hawthorne, NJ	KK4L	Charlotte, NC
W1AW	Newington, CT	KC2TN	Atco, NJ	WA4LPD	Raleigh, NC
K1BC	Lexington, MA	KA2VTY	Elba, NY	WD4LYV	Sycamore, GA
KB1BD	Plainsboro, NJ	W2VY	Union, NJ	WD4MIZ	Virginia Beach, VA
N1BCK	Baldwinsville, NY	WA2YVL	Freeport, ME	K4MJM	Pikeville, TN
N1BGG	Charlestown, MA	N2WX	Palm Bay, FL	KF4N	Lexington, KY
KB1BH	North Billerica, MA	W2X0	Pittsburgh, PA	N4NBX	Mount Carmel, TN
K1BOG	Attleboro, MA	NN2Z	Neptune, NJ	WD4NCN	Reidsville, NC
K1CE	West Hartford, CT	WB2ZDH	Union, NJ	WD4NKZ	Venice, FL
N1CUI	Ridgefield, CT	N3ACL	Red Hill, PA	K4NGC	Dale City, VA
WA1CWG	South Dartmouth, MA	WB3AFL	Greensburg, PA	K4NTA	Stuart, FL
N1DKF	Cranston, RI	N3AIA	Schaumburg, IL	KC4OI	Powell, TN
N1DL	Huntington, NY	KC3BQ	Skaneateles, NY	WD4QQC	Cleveland, TN
N1DRK	Salem, NH	N3CHX	Royersford, PA	KA4OVX	Conyers, GA
WB1DSW	E. Kingston, NH	WA3DQI	Berwick, PA	K4OZM	Orlando, FL
WB1DZK	Agawam, MA	WB3EFG	Baltimore (ne), MD	K4OZS	Ocala, FL
WA1FHB	Marlow, NH	N3ERE	Laporte, PA	KD4PS	Trenton, IL
K1EVU	Westbrook, ME	WB3EYB	Harrisburg, PA	N4QQ	Silver Spring, MD
W1FJI	Scottsdale, AZ	AG3F	Towanda, PA	AA4RE	Gilroy, CA
W1GOH	Brookline, MA	WB3FFV	Middle River, MD	WA4RTS	Lynchburg, VA
W1HAB	Boulder, CO	W3GWS	York, PA	WX4S	Johnson City, TN
KA1JJM	Agawam, MA	K3GYS	Atco, NJ	WA4SZK	Florence, SC
WA1LRL	Brighton, MI	K3IHA	Bargaintown, NJ	WA4TFZ	Charlottesville, VA
KA1MGO	Methuen, MA	W3IWI	Clarksville, MD	K4TKU	Miami, FL
K1MON	Scarborough, ME	KA3OGG	Ellicott City, MD	WA4VMV	Altanta, GA
WA1OJB	Bowdoin, ME	KA3ORW	Pittsburgh, PA	WU4W	Wimauma, FL
W1OW	Norfolk, MA	AK3P	Harrisburg, PA	KF4WQ	Lumberton, NC
W1FW	Windham, NH	K3PGB	Roslyn, PA	N4XG	Hayes, VA
KD1R	Milton, VT	WA3PXX	Wheaton, MD	N4XI	Evansville, IN
WA1RAJ	Acton, MA	K3RLI	Wilkes Barre, PA	KI4XO	Marietta, GA
KA1SY	Terra Alta, WV	W3TMZ	Mount Airy, MD	KA4YEA	Anderson, SC
NE1U	Danbury, CT	WA3UAT	Washington, PA	WB4YJC	Martinsville, VA
K1UGM	Wakefield, MA	KB3UD	East Bangor, PA	KC4YP	Goldsboro, NC
WA1WLX	Lawrence, MA	W3VPR	Annapolis, MD	WB4ZKX	Huntsville, AL
W1ZHC	Mattapoisett, MA	K3VPZ	Granite, MD	WA4ZLW	Boca Raton, FL
KA1ZT	Big Pine Key, FL	KE3Z	Middletown, CT	WB4ZNW	Moultrie, GA
K2AAA	Montauk, NY	W3ZH	Annapolis, MD	WS5A	Roswell, NM
K2APL	Briarwood, NY	K4AHO	Orlando, FL	WB5AAA	Breaux Bridge, LA
WB2ARS	Albuquerque, NM	W4AP	Montgomery, AL	WB5AOH	Ft. Gibson, OK
N2AUK	Howard Beach, NY	WB4APR	Annapolis, MD	WD5B	Little Rock, AR
N2AYY	S. Glens Falls, NY	WD4BAV	Chesterfield, VA	WB5BBW	Houston, TX
NA2B	Massena, NY	KB4FO	Fort Lauderdale, FL	KA5BEM	Albuquerque, NM
KA2BBH	Rochester, NY	K4BFT	Huntsville, AL	N5BSL	Bastrop, LA
KA2BQE	Indian Mills, NJ	WB4BMC	Orange Park, FL	WB5BZE	New Orleans, LA
N2DME	Sacramento, CA	WD4BRF	Stuart, FL	NI5C	Hardy, AR
WB2DRD	Egg Harbor City, NJ	N4CHV	Sunnyvale, CA	KN5D	Albuquerque, NM
KC2EQ	Elmira, NY	W4DPH	Clearwater, FL	W5DDL	Lafayette, LA
WA2EXE	Woodside, NY	KF4EF	Charlestown, SC	WA5DVV	Gulfport, MS
N2EPO	Churchville, NY	K4EID	Knoxville, TN	N5DWU	Laurel, MS
N2EZG	Alpine, NY	WD4EPK	Gainesville, FL	N5EDH	Camp Verde, AZ
WA2FTC	Jamestown, RI	KD4EQ	Panama City, FL	W5ERO	San Antonio, TX
WB2GWD	Readington, NJ	WA4EWV	Spring, TX	W5HUQ	Jacksonville, FL
WB2HBZ	Kinnelon, NJ	KB4FSK	Opp, AL	N5ICC	Las Cruces, NM
W2HPM	Long Island, NY	K4GBB	Cedar Cove, FL	KF5IZ	Jackson, MS
W2ICZ	Buffalo, NY	N4HAP	Sarasota, FL	KC5JH	N. Little Rock, AR
W2JUP	Farmingville, NY	W4HHY	Nashville, TN	KA5KTH	Clear Lake, TX
N2MH	New York City, NY	N4HMD	Shalimar, FL	WA5JXY	El Paso, TX
WB2MNF	Medford, NJ	WD4HXG	Sterling, VA	N5J2T	Roff, OK
WA2MZF	Massena, NY	WB4HYP	Oviedo (orlando), FL	N5LL	San Antonio, TX
KC2PH	Cooperstown, NY	K4ICT	Macon, GA	WA5MWD	Garland, TX
AI2Q	Freeport, NY	N4IPY	Floral City, FL	WB5MPU	Lake Keystone, OK
WB2QJA	White Plains, NY	K4IWW	Raleigh, NC	WA5OLT	Rockport, TX
WA2RKN	Hyde Park, NY	W4KAU	Cohutta, GA	KA5PFB	Lake Charles, LA
WB2RVW	Trenton, NJ	WD4KAV	Port St. Lucie, FL	KB5PM	Austin, TX

WA5QZI	San Antonio, TX	KA7VEE	Everett, WA	KOKBY	Miami, FL
WA5QZS	College Station, TX	KA7VKB	Tacoma, WA	KEOKX	Grand Junction, CO
AI5R	Memphis, TN	KD7XG	Riverside, CA	WOLHS	West Fargo, ND
WA5RAX	Bessemer, AL	N8ACV	Dayton, OH	KMOM	Independence, IA
KR5S	Sedona, AZ	N8BMA	Detroit, MI	NFON	South Sioux City, NE
K5SBU	Corpus Christi, TX	N8BVX	Grand Rapids, MI	KCOOJ	Battle Creek, IA
KD5SL	Baton Rouge, LA	KJ8C	Holland, MI	KOOTZ	Scottsdale, AZ
KF5SE	Palestine, TX	KA8CDM	Martin's Ferry, OH	KOPFX	St. Louis, MO
WB5SXK	Vicksburg, MS	KB8CI	Cleveland, OH	WOPUF	Rapid City, SD
AE5V	Monroe, LA	W8CQK	Columbus, OH	WAOPXW	Hastings, NE
WA5VDM	Sulphur, LA	KE8DN	Mason, MI	KIOQ	Ames, IA
W5XO	Gause, TX	WA8ERQ	Blanchester, OH	WBOQIY	Lincoln, NE
N5WX	Tulsa, OK	N8ET	Findlay, OH	WBOQIZ	Independence, MO
WD6BFC	Redding, CA	N8FIS	Fremont, OH	KCOQJ	Walsenburg, CO
KE6BX	Hollister, CA	N8FJB	Bakerton, WV	WBOQMR	Silverthorne, CO
WD6CMU	Richmond, CA	W8GRG	Shaker Heights, OH	WAORGV	Cedar Falls, IA
N6CUS	Hacienda Heights, CA	WA8HGL	Fayetteville, NC	WAORJT	Cedar Rapids, IA
W6CUS	Richmond, CA	AD8I	Circleville, OH	WORLI	Santa Cruz, CA
WA6ERB	Lakewood, CO	KC8JN	Wintersville, OH	KOSIR	Rochester, MN
AJ6F	Torrance, CA	W8KOX	Walled Lake, MI	KOTAJ	Meccook, NE
KH6GPI	Manoa, Oahu, HI	WB8LVP	Poland, OH	KOTIV	Carbondale, CO
N6HAV	Fresno, CA	WD8MIK	Kingwood, WV	WBOVHW	Devils Lake, ND
N6IIU	Palo Alto, CA	KB8NH	Fort Wayne, IN	KOVLD	Loveland, CO
KB6IRS	Soquel, CA	K8NLD	Fraser, MI	AIOZ	Roland, IA
W6IXU	Arroyo Grande, CA	N8NN	Dayton, OH	VE2AED	Montreal, QE
N6IYA	Felton, CA	KA8POG	Pinconning, MI	VE3XPR	Brantford, ON
NK6K	Redondo Beach, CA	W8QLS	Delaware, OH	VE3EUK	Kitchener, ON
WB6KAJ	Brea, CA	NK8T	Loveland, OH	VE3GYQ	London, ON
WB6KAJ	Brea, CA	KC8TW	Cincinnati, OH	VE3KOI	Milton, ON
WB6KQY	Pomona, CA	WA8URE	Grand Rapids, MI	VE3FJB	Orillia, ON
KE6LT	Boulder, CO	WA8USO	Ravenswood, WV	VE3PAK	Ottawa, ON
N6LUC	Camarillo, CA	WA8YVR	Bloomington, IN	NM8X/VE3	Sarnia, ON
N6MVS	San Bernardino, CA	KA8Z	Canton, OH	VE3NUU	Toronto, ON
WA6NWE	North Highlands, CA	K9AWX	Chicago, IL	VE4AFO	Selkirk, MB
W6PW	San Francisco, CA	N9BAC	Fort Wayne, IN	VE4PKT	Winnipeg, MB
WA6RDH	Dixon, CA	K9CW	Urbana, IL	VE7CPT	Burnaby, BC
KD6SQ	Rancho Cucamonga, CA	WB9CNE	Indianapolis, IN	VE7TOM	Richmond, BC
KD6TH	Wyckoff, NJ	KM9D	Delphi, IN	VE7CFL	Vancouver, BC
WB6VSL	Santee, CA	WD9DHI	Cedarburg, WI	VE7KIT	Vancouver, BC
KH6WY	Mililani (oahu), HI	WD9DOU	Northlake, IL	DF3AV	Peine
WA6YBT	Harrisburg, PA	WA9DZS	Vernon Hills, IL	DLOFFM	Frankfurt
WA6YHJ	Livermore, CA	K9HHO	Goodfield, IL	DK4HM	Oberhausen
WB6YMH	Palos Verdes, CA	K9JA	Urbana, IL	DH1IAZ	Karlsruhe
NV6Z	Saratoga, CA	KB9JD	Terre Haute, IN	DJ1IJ	Salzgitter
WL7AIT	Little Falls, MN	WA9KEC	N. Prairie, WI	DJ7KA	Tuebingen
WB7BNI	Phoenix, AZ	K9KYK	Hillsboro, IL	DBONV	Brauweiler
WB7BOX	Jackson, TN	KJ9L	Skokie, IL	DG3SAJ	Villingen
K7BUC	Phoenix, AZ	KD9LP	Peru, IN	DC6TW	Brauweiler
KC7CG	Tucson, AZ	KA9LQM	Evansville, IN	DL1WX	Langenfeld
KE7CZ	Dewey, AZ	W9LZQ	Anaslaska, WI	DUIUJ	Philippines
WB7DCH	Enumclaw, WA	WB9MJN	Naperville, IL	HB9BXY	Zurich
N7FYA	Tacoma, WA	WB9OWN	Franklin, WI	HB9SDB	Berne
KL7GNG	Fairbanks, AK	KD9PU	Elsmere, KY	JN1AKC	Tokyo
KL7IEJ	Kenai, AK	WB9TPG	Versailles, KY	JR1EDE	Tokyo
KL7ILA	Palmer, AK	WA9UXP	Valparaiso, IN	JA1KSO	Yokohama
KL7JFU	Palmer, AK	AG9V	Green Bay, WI	JG3GXX	Kyoto
N7HFZ	Spokane, WA	W9WI	Madison, WI	JA3JWI	Osaka
WA7HRA	Yuma, AZ	W9ZBD	Rhineland, WI	LA3T	Tromsoe
K7IFG	Portland, OR	W9ZRX	Westfield, IN	LA6OCA	Skien
K7JD	Hayden Lake, ID	W9ZTK	Mendota, IL	LA6OCA	Skien
W7LHO	Sante Fe, NM	WBOAEX	Olathe, KS	LA6TBA	Oslo
WA7MBL	Logan, UT	NOAN	Mccallsburg, IA	LU7ABF	Buenos Aries
WA7NTF	Spanaway, WA	WBOBLV	Colorado Springs, CO	OE1GSU	Vienna
KE7OM	North Bend, WA	KOBOY	Omaha, NE	OE1XIB	
KD7PK	Las Vegas, NV	WAOCJU	Waseca, MN	OE9XPI	Bergen
WB7QWC	Indianapolis, IN	WAOCQG	Apple Valley, MN	PAOBVT	Amsterdam
K7PYK	Scottsdale, AZ	KDODI	Durango, CO	SM4KJC	Karlstad
WB7QKP	Nuevo, CA	NODOT	Junction City, KS	TI2ALG	San Jose
KA7RMA	Boise, ID	WBOGDB	Woodbury, MN	VK2AHX	
WA7SSO	State College, PA	WDGNNK	Rochester, MN	VK2AQC	Sydney
WA7TJU	Cheyenne, WY	KOGUZ	Rifle, CO	VK2XY	Sydney
WB7TLS	Tucson, AZ	WDOHEB	Rochester, MN	VK4AGC	
WB7TPY	Scottsdale, AZ	NOHME	Ft. Madison, IA	VK4BBS	Eight Mile Plains
WB7TRX	Salt Lake City, UT	KOHOA	Colorado Springs, CO	YB9ZW	Mataran
KB7TV	Boynton Beach, FL	WAQJFS	Des Moines, IA	ZF1GC	Grand Cayman

TEXNET STATUS REPORT

The Texas Packet Radio Society (TPRS) TEXNET networking project (see Gateway, Volume 3, Number 14) continues. Development of the TEXNET Node Control Processor (NCP) continues, with 5 version 2 NCP boards in hand. These boards include both 1200- and 9600-bit/s modems. The 9600-bit/s modem is based on the K9NG design (see "Modifying the Hamtronics FM-5 for 9600 bps Packet Operation," Fourth ARRL Amateur Radio Computer Networking Conference, pp 45-50), but it includes adjustments that equalize the modem frequency response to that of the radio in use.

The network is currently centered around the Dallas area, but plans are afoot for extending it to Austin and College Station. After those nodes are in place, the plan is to extend the system to San Antonio and Houston. Plans are not yet firm for growth beyond that point, as it is not yet clear what level of support will be available throughout the state.

TPRS will be holding its annual meeting at HamCom in Dallas on June 6. [Bet they have a TEXNET demonstration set up there! -- Ed.]

From the TPRS Quarterly Report, Winter 1987

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